

Cooking Times



twinkl

Aim

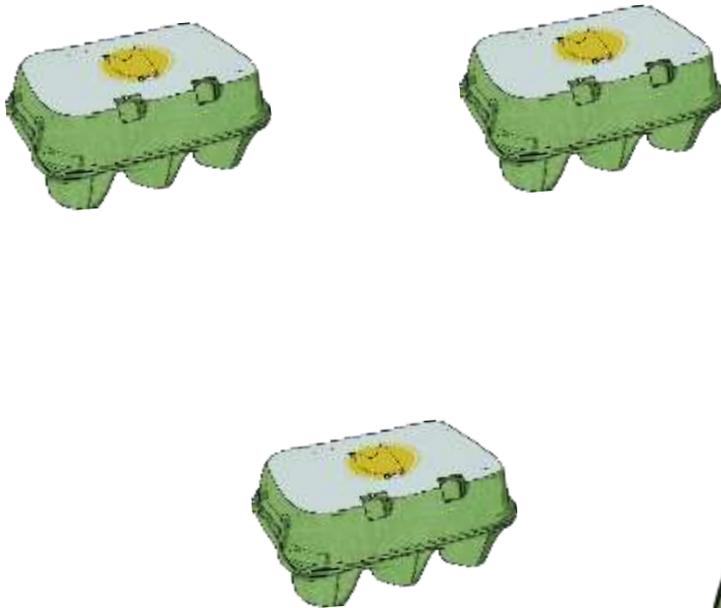
- I can solve problems involving converting between times written as hours and minutes and times written in minutes.

Success Criteria

- I can convert times given in minutes into hours and minutes.
- I can convert times given in hours and minutes into minutes.
- I can solve a problem involving timed events, converting from one unit to another.

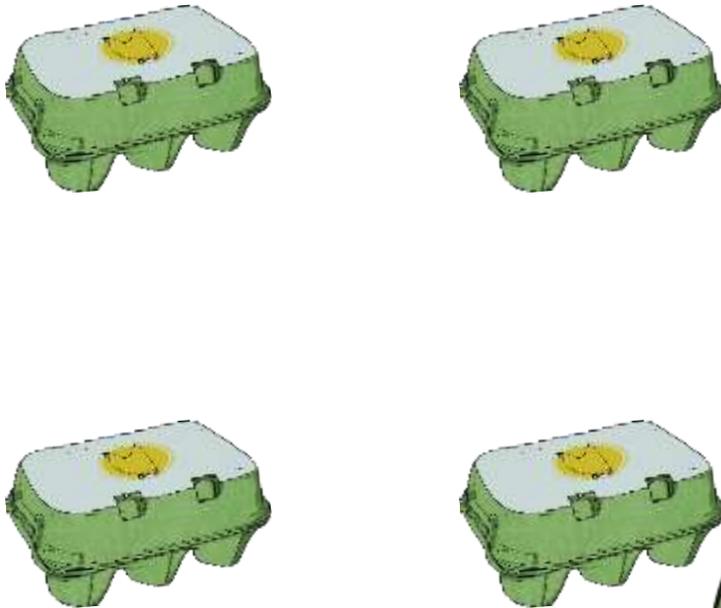
How Many Eggs?

Eggs come in boxes of 6. How many eggs in these boxes?

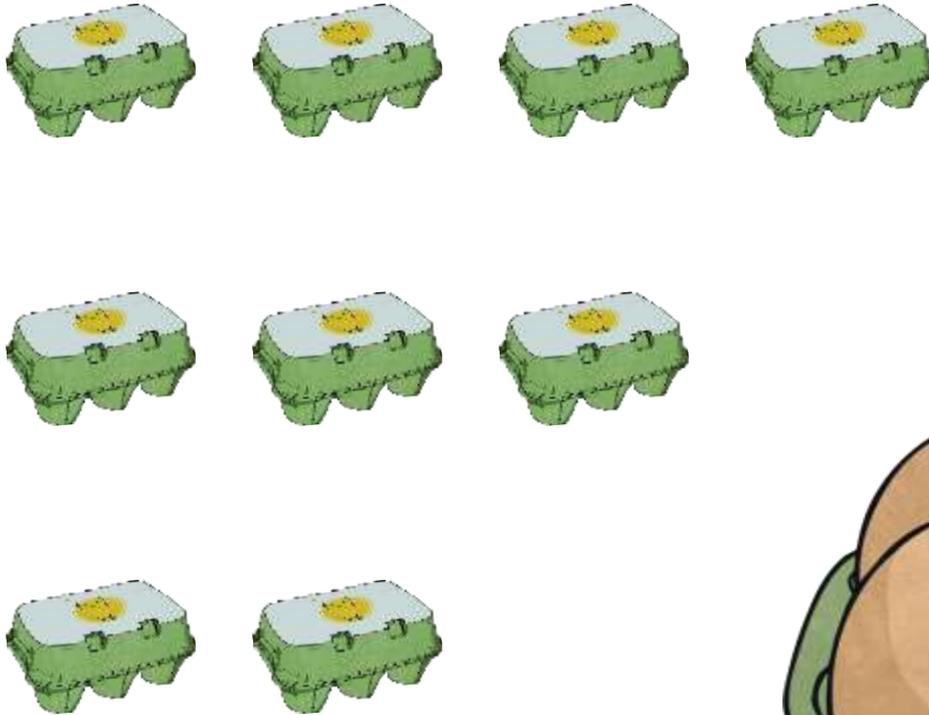


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How Many Eggs?

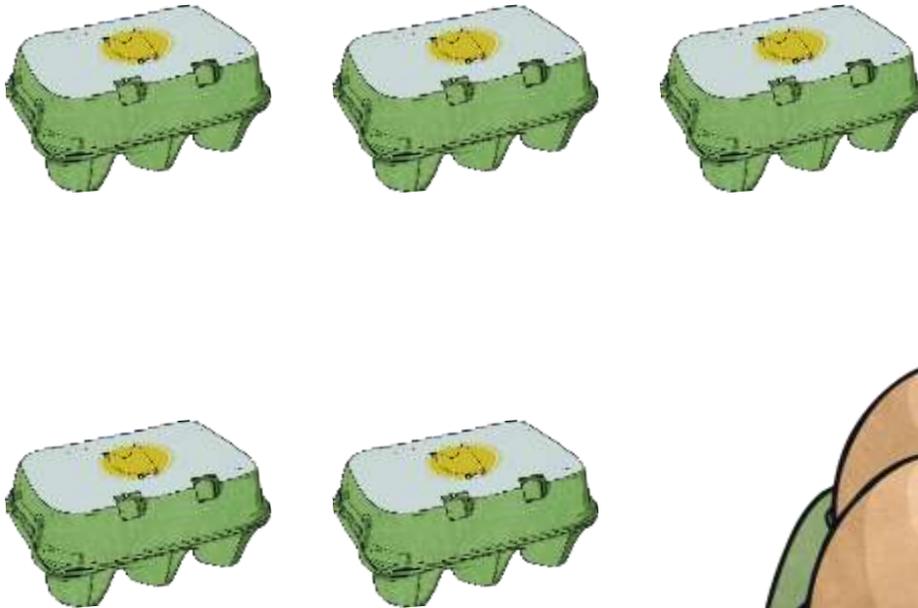


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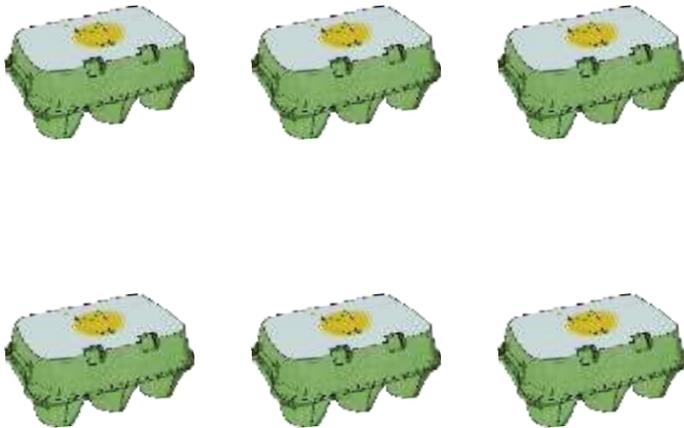
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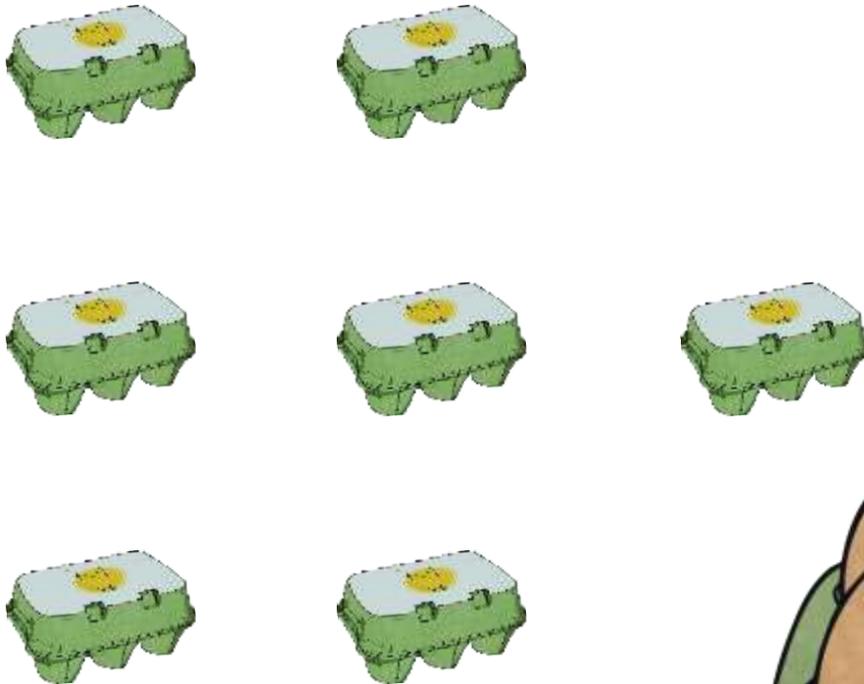


How Many Eggs?

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How Many Eggs?



Eggs come in boxes of 6. How many eggs in these boxes?



Converting Hours to Minutes

What multiplication table will help us to multiply and divide by 60?

Eggs come in boxes of 6. How many eggs in these boxes?

To convert between hours and minutes, what number should we multiply or divide by and why?

The 6x table will be helpful.

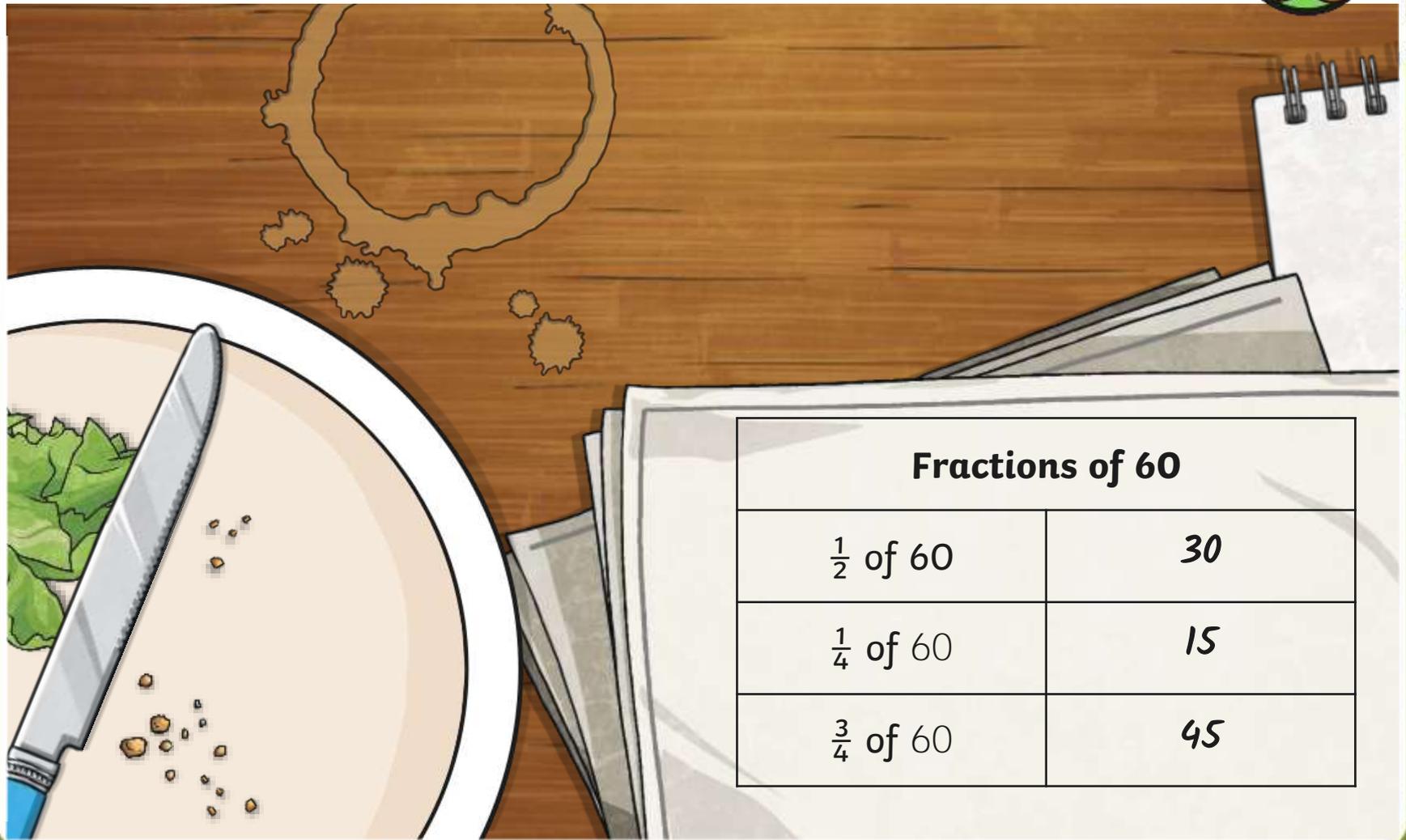
We need to multiply and divide by 60, because there are 60 minutes in one hour.

Converting Hours to Minutes

Can you use your $6 \times$ table to complete the list of multiples of 60?

There are 60 minutes in 1 hour. Convert these times into minutes.

Multiples of 60	
1×60	60
2×60	
3×60	
4×60	
5×60	
6×60	
7×60	
8×60	
9×60	
10×60	



Fractions of 60

$\frac{1}{2}$ of 60

30

$\frac{1}{4}$ of 60

15

$\frac{3}{4}$ of 60

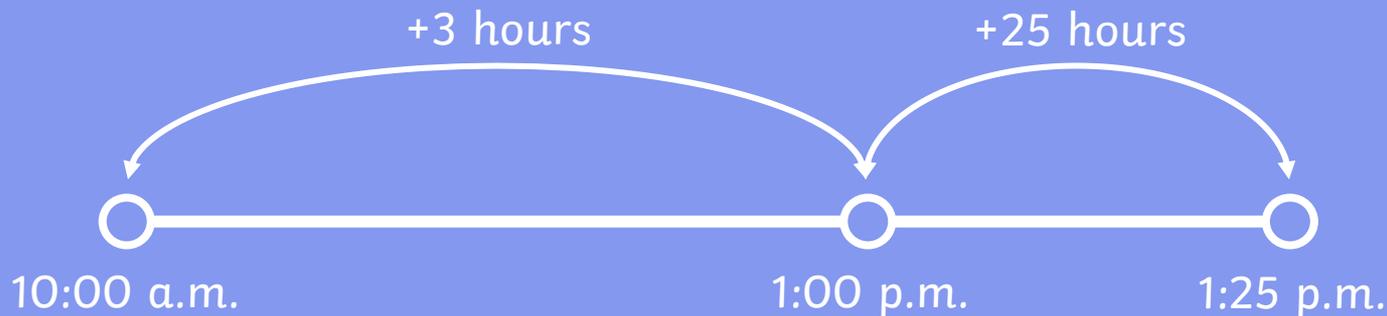
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Cooking Start and Finish Times

Here are some popular slow-cooker recipes. The start times and end times are given. Calculate how long each recipe takes to cook, write your answer in hours and minutes.

Recipe	Start Time	End Time	Time Taken (Hours and Minutes)
Spinach and chicken curry	10:00 a.m.	1:25 p.m.	<i>3 hours and 25 minutes</i>

Let's calculate the time taken for the first recipe. We can use a timeline:



Cooking Start and Finish Times

Convert the cooking times from hours and minutes to just the total number of minutes. The first one has been done:

Recipe	Time Taken (Hours and Minutes)	Time Taken (Minutes)
Spinach and chicken curry	3 hours 25 minutes	205 minutes
Chicken casserole	4 hours 10 minutes	
Meat stroganoff	6 hours 5 minutes	
Mushroom risotto	1 hour 35 minutes	
Rice pudding	4 hours 25 minutes	

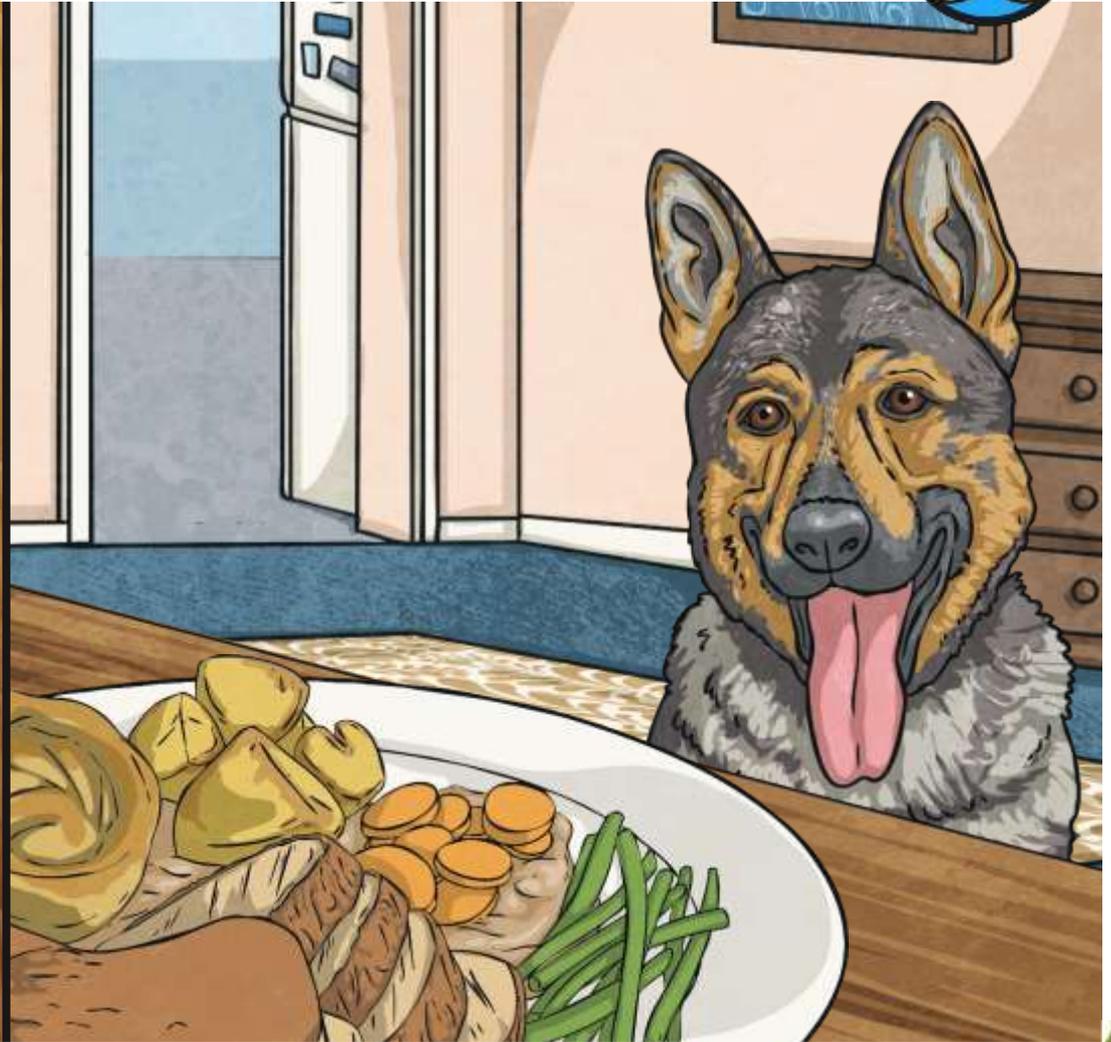
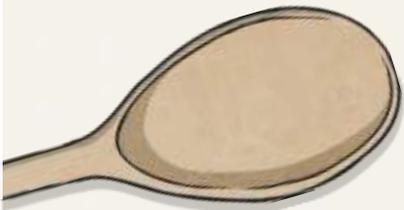
Cooking Turkeys



To cook a turkey, the following guidelines should be used:

If the turkey is 4kg or over, calculate 20 minutes per kg plus 90 minutes.

If the turkey is under 4kg, calculate 20 minutes per kg plus 70 minutes.

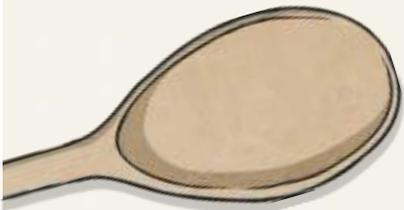


Cooking Turkeys

To cook a turkey, the following guidelines should be used:

If the turkey is 4kg or over, calculate 20 minutes per kg plus 90 minutes.

If the turkey is under 4kg, calculate 20 minutes per kg plus 70 minutes.



How long should a turkey that weighs **3.5kg** be cooked for?

Answer:

$$3.5\text{kg} \times 20 \text{ minutes} \\ = \mathbf{70 \text{ minutes}}$$

$$70 \text{ minutes} + 70 \text{ minutes} \\ = \mathbf{140 \text{ minutes}}$$

$$140 \text{ minutes} \\ = \mathbf{2 \text{ hours } 20 \text{ minutes}}$$



1. Convert the following times from hours to minutes.

- a. 3 hours = _____ minutes
- b. 7 hours = _____ minutes
- c. 5 hours = _____ minutes
- d. 8 hours = _____ minutes

2. Convert the following times from minutes to hours.

- a. 360 minutes = _____ hours
- b. 120 minutes = _____ hours
- c. 600 minutes = _____ hours
- d. 240 minutes = _____ hours

3. Prue has been very busy developing new recipes for the Slow Chef Recipe Book. She recorded the time she started cooking and when each dish was cooked to perfection. Help her to calculate how long each recipe took to cook, writing your answer in minutes.

Recipe	Start Time	End Time	Cooking Time (Minutes)
Vegetable curry	10:30 a.m.	1:00 p.m.	
Onion soup	1:00 p.m.	4:30 p.m.	
Bread and butter pudding	4:15 p.m.	7:15 p.m.	
Roast chicken	11:45 a.m.	5:15 p.m.	

4. Paul wants his dinner to be ready at these end times. The Slow Chef Recipe Book tells him how long each dish takes to cook. Help him to calculate what time to start cooking.

Recipe	Start Time	End Time	Cooking Time
Vegetable casserole		3:30 p.m.	300 minutes
Chilli con carne		6:00 p.m.	240 minutes
Cheese cake		5:45 p.m.	120 minutes
Macaroni cheese		12:45 p.m.	90 minutes

5. To cook a turkey, the following guidelines should be used:

If the turkey is 4kg and over

calculate 20 minutes per kg
plus 90 minutes.

If the turkey is under 4kg

calculate 20 minutes per kg
plus 70 minutes.

Calculate how long you should cook the following sized turkeys. Write your answer in hours and minutes. Show how you worked out the answer.

a) a turkey weighing 6kg

b) a turkey weighing 2kg

c) a turkey weighing 7kg



- Convert the following times from hours to minutes.
 - 6 hours = _____ minutes
 - $2\frac{1}{2}$ hours = _____ minutes
 - $3\frac{1}{4}$ hours = _____ minutes
 - $5\frac{3}{4}$ hours = _____ minutes
- Convert the following times from minutes to hours. Use a fraction to record additional minutes (e.g. $2\frac{1}{2}$ hours).
 - 240 minutes = _____ hours
 - 315 minutes = _____ hours
 - 375 minutes = _____ hours
 - 510 minutes = _____ hours
- Nigella has been very busy developing new recipes for the Slow Chef Recipe Book. She recorded the time she started cooking and when each dish was cooked to perfection. Help her to calculate how long each recipe took to cook, writing your answer in minutes.

Recipe	Start Time	End Time	Cooking Time (Minutes)
Potato curry	9:35 a.m.	2:10 p.m.	
Tomato soup	3:10 p.m.	5:55 p.m.	
Sponge pudding	2:20 p.m.	7:45 p.m.	
Chicken hotpot	10:55 a.m.	6:05 p.m.	

4. Gordon wants his dinner to be ready at these end times. The Slow Chef Recipe Book tells him how long each dish takes to cook. Help him to calculate what time to start cooking.

Recipe	Start Time	End Time	Cooking Time
Bean casserole		7:40 p.m.	600 minutes
Veggie mash		4:30 p.m.	200 minutes
Sponge cake		6:45 p.m.	260 minutes

5. To cook a turkey, the following guidelines should be used:

If the turkey is 4kg and over

calculate 20 minutes per kg
plus 90 minutes.

If the turkey is under 4kg

calculate 20 minutes per kg
plus 70 minutes.

Calculate how long you should cook the following sized turkeys.

Write your answer in hours and minutes. Show how you worked out the answer.

a) a turkey weighing 7kg

b) a turkey weighing 3.5kg

c) a turkey weighing 8.5kg

6. A 5kg turkey is put in the oven at 2:15 p.m. When will it be cooked?



- Convert the following times from hours to minutes.
 - 5 hours = _____ minutes
 - $3\frac{1}{2}$ hours = _____ minutes
 - $8\frac{1}{4}$ hours = _____ minutes
 - $7\frac{3}{4}$ hours = _____ minutes
- Convert the following times from minutes to hours. Use a fraction to record additional minutes (e.g. $2\frac{1}{2}$ hours).
 - 165 minutes = _____ hours
 - 555 minutes = _____ hours
 - 330 minutes = _____ hours
 - 405 minutes = _____ hours
- Nadia has been very busy developing new recipes for the Slow Chef Recipe Book. She recorded the time she started cooking and when each dish was cooked to perfection. Help her to calculate how long each recipe took to cook, writing your answer in minutes.

Recipe	Start Time	End Time	Cooking Time (Minutes)
Aubergine curry	10:45 a.m.	3:30 p.m.	
Carrot soup	2:05 p.m.	6:40 p.m.	
Semolina pudding	1:25 p.m.	5:05 p.m.	
Vegetable hotpot	9:35 a.m.	5:55 p.m.	

4. Rahul wants his dinner to be ready at these end times. The Slow Chef Recipe Book tells him how long each dish takes to cook. Help him to calculate what time to start cooking.

Recipe	Start Time	End Time	Cooking Time
Vegetable casserole		3:45 p.m.	300 minutes
Goulash		5:15 p.m.	210 minutes
Drizzle cake		1:35 p.m.	190 minutes

5. To cook a turkey, the following guidelines should be used:

If the turkey is 4kg and over

calculate 20 minutes per kg plus
90 minutes.

If the turkey is under 4kg

calculate 20 minutes per kg plus
70 minutes.

Calculate how long you should cook the following sized turkeys. Write your answer in hours and minutes. Show how you worked out the answer.

a) a turkey weighing 5.3kg

b) a turkey weighing 2.8kg

c) a turkey weighing 7.5kg

6. How much longer does turkey weighing 4kg take to cook than one which weighs 3.5kg?

Turkey Problem

The Burns family are having turkey for their family celebration meal. Dad wants to have the turkey cooked 45 minutes before they sit down to eat. The family plan to eat their meal at 6:15 p.m. The turkey weighs 8.5kg. What time does he need to put the turkey into the oven?

▼ Cooking Turkey Information

If the turkey is 4kg or over, calculate 20 minutes per kg plus 90 minutes.
If the turkey is under 4kg, calculate 20 minutes per kg plus 70 minutes.

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